

LOUISIANA SCIENCE TEACHERS ASSOCIATION

SEPTEMBER 2009

President's Message from Charlotte Bihm



Greetings LSTA Members,

I hope that all members have had a productive start to the 2009-2010 academic year.

This past July, Shannon Lafont and I attended the National Congress on Science Education (NCSE). The Congress is an important event that allows our local voices to be heard by the governing bodies of NSTA for their consideration. This year there were focus groups and resolutions pertaining to teacher retention, supporting teacher leaders, meeting the needs of diverse learners, components of a support system for science teachers, optimizing science in the elementary grades, and K-8 integration of science and mathematics. A summary report is included for your perusal.

Also in this issue of the LASER you will find the **Guidelines for Science Teaching** that were developed and released by the Louisiana Department of Education and an Advisory Committee, in response to the Louisiana Science Education Act. Included are middle school and high school guidelines and a glossary of key related terms.

As we move closer to an exciting LATM/LSTA Joint Conference 2009, consider volunteering some of your time to assist behind the scenes or to provide guidance to a newcomer. More information about registration is included within; hurry so you can take advantage of discounted registration fees!

It has been an honor and a privilege to serve as President of this organization. I look forward to continued service as Past President.

Best wishes for a wonderful fall.

Charlotte Bihm

Reminder: The Quality Science & Math Grant Program submission deadline is September 18, 2009. Get yours in today!

LSTA Board and Regional Representatives

Members of the LSTA Executive Board

Charlotte Bihm President Crb3739@slp.k12.la.us	Jean May-Brett NSTA Liaison/BaP Coordinator jean.may-brett@la.gov	Tina Savoie Region 5 Representative tina_savoie@camsch.org
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Paul Johnson Membership pjohnson@tpsd.org	Debra Carroll Region 4 Representative debracarroll@bellsouth.net	Joyce Tate Parliamentarian joyce.tate@mcschools.net

Congrats

Lisa Hartman Named 2009 State Finalist for Presidential Awards

Lisa Hartman from Benjamin Franklin High School in New Orleans is Louisiana's State Finalist in science for the Presidential Awards for Excellence in Mathematics and Science Teaching. The Presidential Awards are the Nation's highest honors for teachers of mathematics and science. Managed by the National Science Foundation, the program recognizes highly qualified K-12 teachers for their contributions in the classroom and to their profession.

Lisa's application packet has been submitted for national level review. At the national level, the National Science Foundation convenes a Selection Committee composed of prominent mathematicians, scientists, mathematics and science educators, and past Awardees who review the application packets of the State Finalists and recommend to the President of the United States a single finalist in each category (mathematics or science) for each state or jurisdiction. Announcement of the Presidential Awardee should come in Spring 2010.

2009 National Congress on Science Education



The Congress is an independent body of representatives of NSTA's State Chapters and Associated Groups. The NCSE has had ten annual summer meetings in which delegates bring resolutions that reflect issues in science education to the Congress. This past July, the NCSE addressed some resolutions to the attention of NSTA and presented statements of position from the Congress. There are three types of

resolutions: those that are addressed to the attention of the chapters and Associated Groups for their consideration, those that are addressed to the attention of NSTA for consideration, and those which are statements of position of the Congress on various issues.

The six Current Issue Forums at the 2009 Congress were:

- Resources for Retaining Teachers
- Supporting Science Leaders
- Meeting the Needs of Diverse Learners
- Components of a Support System for Science Teachers
- Optimizing Science in the Elementary Grades
- K-8 Integration of Science & Mathematics

Some of those position statements of the 2008 Congress are:

7/09CNG15 Be it resolved that the 2009 NCSE promotes, supports, and advocates that elementary science education is critical to the foundation of science literacy and affects the future science course selection and career opportunities.

7/09CNG16 Be it resolved that the 2009 NCSE advocates teacher preparation and continued learning that focus on a natural integration of math and science education; i.e. accurate, research-based, high quality content through the context of

- Project based learning
- Problem based learning
- Technology rich opportunities
- Real world application literacy across content

If you are interested in viewing the full 2009 NCSE report in the near future, visit the NSTA page dedicated to the event. There are also documents associated with previous Congresses at <http://www.nsta.org/about/collaboration/chapters/congress.aspx?lid=ql>.

La Science Education Act

Guidelines for Science Teaching

Introduction:

According to the *Louisiana Comprehensive Curriculum: Science*, “Science is the human activity of seeking natural explanations for what we observe in the world around us. Science does so through the use of observations, experimentation, inferences, and logical arguments while maintaining strict empirical standards and healthy skepticism. While assuming that anything that can be observed or measured is amenable to scientific investigation, science also explicates that the universe operates according to regularities that can be discovered and understood through scientific investigations. The testing of various explanations of natural phenomena for their consistency with empirical data is an essential part of the methodology of science. Scientific explanations must be consistent with experimental and observational data and be tested by scientists through additional observations and/or experimentation. Established theories stand until new facts are discovered, tested, and verified or a new hypothesis, which more closely explains the data, is developed and tested. Explanations that are not consistent with empirical evidence or cannot be tested empirically are not a part of science (ix).”

As students prepare to be effective citizens in a global market, schools must provide opportunities for students to use 21st century skills. Teachers must select activities that allow students to think critically about the world around them. Science education is an active discipline that involves questioning, reasoning, experimenting, analyzing and interpreting data, and solving problems. The science classroom needs to be designed to encourage these types of activities.

What Is Science?

- Science is a discipline that is based on empirical evidence.
- Science is useful for solving problems and collecting evidence.
- Science includes observation, experimentation, collection of a multitude of information, and replication.
- Science is active and involves asking questions and thinking critically to try to solve those questions.
- Science involves peer review and publication.

What is NOT science?

- Science is not static.
- Science is not concerned with belief systems.
- Science is not concerned with solving moral questions.

The following middle school and high school guidelines describe what science should look like in the classroom setting.

Middle School Science Guidelines

Science instruction at the middle school level should:

- Provide an experience of inquiry as an instructional outcome (knowing and doing)
- Implement approaches to teaching science (e.g., modeling and experimental design) that cause students to question and explore and to use experiences to raise and answer questions
- Offer opportunities to conduct investigations that collect evidence needed to answer a variety of questions
- Support learning that involves critical thinking and requires logical explanations based on evidence
- Introduce activities (e.g., using real time data, addressing a community issue, etc.) that support discovery and call for student exploration, explanation, and decision-making

- Guide student awareness that the scientific community seeks explanations that are based on empirical evidence and are logically consistent
- Assist students in understanding the importance of being skeptical as they review their work and the work of others
- Focus on the use of critical thinking skills when students examine issues in science
- Avoid instructor or media bias
- Promote research that draws from published and scientifically credentialed sources (i.e., AAAS, NAS, CDC, NASA, NOAA, Science, Nature)
- Not advocate any religious interpretations of nature and should be non-judgmental

High School Science Guidelines

Science instruction at the high school level should:

- Emphasize teaching students how to think through issues, analyze available information, and solve problems. Model these skills.
- Differentiate among hypothesis, scientific theory, and scientific law. (See attached glossary.)
- Use empirical evidence, verifiability, reliability, logical consistency, verified predictions, and peer review to differentiate between science and non-science.
- Utilize literacy strategies such as student opinionnaires, graphic organizers, and SPAWN to promote critical thinking on alternative explanations.
(Literacy strategies can be accessed at <http://www.louisianaschools.net/lde/uploads/11056.doc>.)
- Utilize SI GLE 16, Rules of Evidence when examining the scientific validity of claims or theories.
[SI GLE 16. Use the following rules of evidence to examine experimental results:
(a) Can an expert's technique or theory be tested, has it been tested, or is it simply a subjective, conclusive approach that cannot be reasonably assessed for reliability?
(b) Has the technique or theory been subjected to peer review and publication?
(c) What is the known or potential rate of error of the technique or theory when applied?
(d) Were standards and controls applied and maintained?
(e) Has the technique or theory been generally accepted in the scientific community?]
- Utilize the seven questions from the Exploratorium: The Museum of Science, Art, and Human Perception for evidence examination, logical analysis and open discussion of any scientific claim.
 - What is the claim?
 - Who makes it?
 - What is the evidence?
 - How did the investigator get the evidence?
 - Is there anything (or anyone) to back up this claim?
 - Could there be another explanation?
 - Who cares?
 - Can you believe it?
- Guide students in researching opposing ideas, explanations, or theories and in analyzing sources of information.
- Provide instruction to students on how to objectively communicate their ideas, how to question other students, and how to defend their position using supportive evidence.
- Guide students to distinguish between science and religion.
(Faith refers to beliefs that are accepted without empirical [observed] evidence. Most religions have tenets of faith. Science differs from religion because it is the nature of science to test and retest explanations about the natural world and to record empirical evidence. Scientific explanations are likely to be supported by and built on and modified with new evidence and new ways of looking at old information. This is quite different from most religious beliefs.)

Glossary

Empirical Evidence

A central concept in science is that all evidence must be empirical, that is, dependent on evidence or consequences that are observable by the senses. Empirical evidence is data that are produced by experimental testing or observation. “Empirical” as an adjective or adverb is used in conjunction with both the natural and social sciences, and refers to the use of working hypotheses that are testable using observation or experiments. In practice, the accumulation of evidence for or against any particular theory involves planned research designs for the collection of empirical data.

Hypothesis

A hypothesis is a preliminary assumption, prediction, or tentative explanation based on observation, research, or information. It is a statement that may account for a set of facts or an observed phenomenon. It is stated for the purpose of investigation and testing. Following experimentation, observation, or research, a hypothesis may or may not be supported by the evidence, but in science there is no such thing as absolute proof. Evidence supports the hypothesis; it does not prove the hypothesis.

Theories in Science

The most important scientific explanations are called theories. In ordinary speech, theory is often used to mean “guess” or “hunch;” whereas, in scientific terminology, a theory is a set of universal statements that explains some aspect of the natural world. Theories are powerful tools and are based on long term repeated testing and evidence. Scientific theory is the terminology used instead of law when the explanation cannot be universally tested such as formation of the universe or changes that occurred over long periods of time. Theories often require abstract rather than concrete reasoning. Scientists seek to develop theories that:

- are firmly grounded in and based upon empirical evidence;
- are logically consistent with other well-established principles;
- explain more than rival theories; and
- have the potential to lead to new knowledge.

The body of scientific knowledge changes as new observations and discoveries are made. In addition, theories and other explanations change. New theories emerge, and other theories are modified or discarded. Throughout this process, theories are formulated and tested on the basis of empirical evidence, internal consistency, and their explanatory power. Often scientific theories have more empirical evidence to support them than do scientific laws.

Scientific Law

A scientific law is a law-like statement that generalizes across a set of conditions. To be accorded law-like status, a wide variety of these conditions should be known (i.e., the law has a well documented history of successful replication and is supported by empirical evidence). While the concept of a scientific law is closely related to the concept of a scientific theory, it is important to realize that a scientific law does not grow from or supersede a related scientific theory. A scientific law attempts to describe an observation in nature while a scientific theory attempts to explain it.

Laws (e.g., Boyle’s law and Newton’s laws of motion) form the basic theoretical structure of the physical sciences, so the rejection of a law by the scientific community is an extremely rare event. On occasion, a law may be modified, as was the case when Albert Einstein showed that Newton’s laws of motion do not apply to objects traveling at speeds close to that of light.

Reliability

In experimental sciences, reliability is the extent to which the measurements of a test remain consistent over repeated tests of the same subject under identical conditions. An experiment is reliable if it yields consistent results of the same measure. It is unreliable if repeated measurements give different results.

Verifiability

A synonym for verifiability would be confirmability. A scientist requires the specification of observations that would count for or against a statement, which would confirm or disconfirm it to a certain extent. Scientists use data and empirical evidence to support statements. The criterion of verifiability is one of the ideal goals of scientific theory building. Scientific knowledge is built upon empirically verifiable statements.

Resources for Understanding and Teaching Evolution (Part 3 of 3)

Developed by Patsye Peebles, 2008 LSTA Claudia Fowler Distinguished Service Awardee

Here is a list of some of my favorite resources:

Evolution Resources from the National Academies (Science, Engineering, Medicine, etc.) <http://nationalacademies.org/evolution/>

- Read your own copy of Science, Evolution, and Creationism, Teaching About Evolution and the Nature of Science and many other resources

National Center for Science Education <http://ncseweb.org/>

- The organization which helps science teachers teach evolution and helps fight intrusion by outside groups, such as The Discovery Institute

Evolution and the Nature of Science <http://www.indiana.edu/~ensiweb/>

A large collection of resources for and by teachers (including The Checks and The Great Fossil Hunt activities plus many others)

Evolution on PBS – a library of resources <http://www.pbs.org/wgbh/evolution/index.html>

- Started with the EVOLUTION series
- Lots of resources which are useful with or without the PBS films
- Judgment Day: Intelligent Design on Trial <http://www.pbs.org/wgbh/nova/id/>

Excerpts from statements by Scientists who see no conflict between their faith and science <http://nationalacademies.org/evolution/StatementsScience.html>

Video from AAAS with Francis Collins, Director of the Human Genome Project

http://www.youtube.com/watch?v=58UDTq3kaZM&eurl=http://www.aaas.org/news/press_room/evolution/ (A born-again Christian and famous scientist speaks about the lack of conflict between evolution and religion)

Ken Miller's Evolution Education Resource Page <http://www.millerandlevine.com/km/evol/>

- A nice resource from the textbook author, professor, and well-known speaker

NABT resources on evolution <http://www.nabt.org/websites/institution/index.php?p=110>

NSTA resources on evolution <http://www.nsta.org/publications/evolution.aspx>

Great Resources from National Geographic

- National Geographic – Darwin's First Clues <http://ngm.nationalgeographic.com/2009/02/darwin/quammen-text.html>
- National Geographic Darwin Quiz <http://ngm.nationalgeographic.com/2009/02/darwin-legacy/quiz-interactive>

Fifteen Evolutionary Gems from NATURE <http://www.nature.com/nature/newspdf/evolutiongems.pdf>

A free resource from a prestigious scientific journal listing the latest research in evolution

Ten Questions, and answers, about Evolution (An intelligent design supporter developed a list of ten questions to ask teachers. Here are the answers!) <http://www.millerandlevine.com/ten-answers.html>

The current conflict about the teaching of evolution has been called a culture war. Part of the reason is a basic misunderstanding of the science involved, and part is the mistaken idea that evolution and religion cannot coexist.

Here is a statement from “God and Evolution” by Peter M.J. Hess at <http://ncseweb.org/religion/god-evolution> that is important to keep in mind. “Evolution makes no claims about God’s existence or non-existence, any more than do other scientific theories such as gravitation, atomic structure, or plate tectonics. Just like gravity, the theory of evolution is compatible with theism, atheism, and agnosticism. Can I accept evolution as the most compelling explanation for biological diversity, and yet also accept the idea that God works through evolution? Certainly.”

Finally, I want to ask for your help. This is an issue which will not go away. In Texas very recently they faced a huge battle concerning their science standards, which had of course been developed by teams of scientists and teachers. The “outsiders” from the Discovery Institute came in and found allies on the Texas Board of Education and managed to tinker with the standards. Please help us when these issues with standards, textbooks, bills, etc. come up before the BESE board, the legislature, the local school boards, and everywhere else that politics threatens science teaching. Keep up with developments at the Louisiana Coalition for Science website <http://lasciencecoalition.org/> and SPEAK UP FOR SCIENCE!!

News from the Louisiana Department of Education

The Gulf of Mexico Alliance (GOMA) is a partnership of the states of Alabama, Florida, Louisiana, Mississippi, and Texas, with the goal of significantly increasing regional collaboration to enhance the ecological and economic health of the Gulf of Mexico. Priority issues for this multi-state collaboration are:

- Water Quality
- Habitat Conservation and Restoration
- Environmental Education
- Ecosystem Integrations and Assessment
- Coastal Community Resilience, and

The Louisiana Department of Education is an active participant in the Environmental Education component of GOMA. GOMA has compiled information that will be of use in classrooms addressing environmental science, life science, or Earth science concepts. The information can be located on the GOMA website found at <http://gulfofmexicoalliance.org>. To access the GOMA Environmental Education Network, go to <http://www.gulfallianceeducation.org/index.php>. The *GOMA Online Digital Library* is a portal that puts Gulf of Mexico science knowledge at your fingertips. Were you ever curious as to what is the “dead zone” in the gulf? Or maybe you’re a teacher looking for information on estuaries for your class lesson. The right place to find such information is at <http://www.nbio.gov/gomaeen>. In addition, information on the Gulf of Mexico ecosystem, watershed, and economy can be found at http://gulfofmexicoalliance.org/about/eco_supp.html.

A major concern for the health of the gulf environment is excessive nutrients (nutrient density) in gulf waters as a result of runoff of fertilizers through coastal watersheds. Nutrient dense waters lead to algal bloom and a reduction of dissolved oxygen in water. The objective of the *Gulf of Mexico Hypoxia Watch* is to develop new near-real time data and maps on measurements of dissolved oxygen and to disseminate them over the Internet. Access the scientific data and map at <http://ecowatch.ncddc.noaa.gov/hypoxia>. For additional information on this issue, go to NOAA’s *Nonpoint Source Pollution: Nutrients* located at <http://oceanservice.noaa.gov/education/kits/pollution/010nutrients.html>. Current information on the dead zone as a result of hypoxia in the Gulf of Mexico can be found at <http://newsjunkiepost.com/2009/07/29/dead-zones-plastics-still-a-problem-in-our-oceans>.

Environmental concepts and connections are integrated throughout many grades and courses in the science curriculum. I hope the wonderful resources above prove useful to you as you progress through the 2009-2010 school year.

Ann Wilson, Science Program Coordinator, Louisiana Department of Education

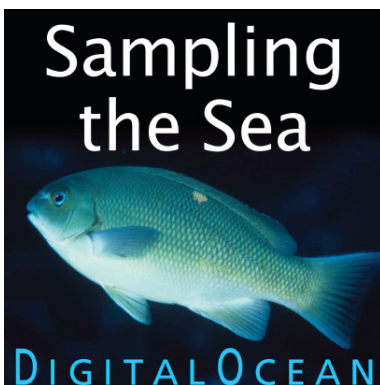
MSP Teachers Shadow Researchers

To culminate three years of their High School MSP project, Algebra 1 and Physical Science teachers in St. Landry Parish's Math Science Partnership Project - **Project Synergy** – spent time shadowing researchers in laboratories or in the field.

Bernadine Stewart of Rayne High School shadowed Dr. Herry Utomo, Dr. Ida Utomo and Dr. Gretchen Zaunbrecher at the LSU Agriculture Center/Rice Research Station in Rayne. During her time with the researchers she learned about the biotechnology of rice varieties and the California Bullrush marsh plant. Stem cell research and development, DNA tracing and development of new varieties are a result of their research. Dr. Ida Utomo was testing a new rice variety which could double the protein content of that rice for use in Third World Countries. According to Bernadine, “these three gracious professionals provided a tremendous experience and allowed my physical science classes to tour the research facility” an added benefit to her experience.

Stephanie Vidrine of Evangeline Central (Ville Platte) spent many hours this summer shadowing an LSU Agricultural Engineer. In her work in her project she researched the background of the impacted land area and how bridges might affect the wildlife, including plant and animal life, the flow of the waterway and the economy of the area. She had to determine the speed of the water and how that affected erosion along the banks. She also had to help determine the necessary height of the bridges in order for a person in a canoe to be able to pass. After completing the research, she assisted in preparing a report for submission to a review panel. Stephanie referred to her time as “a wonderful experience that took place a 4-H camp Grant Walker in Pollock Louisiana.”

Eddie Roberts of Beau Chene High School (Arnaudville) spent time working with Dr. Ray LaCour and a team of local volunteers removing approximately two-thirds of overgrowth and monitoring the water quality to restore the natural habitat of an area lake. “The water lilies and other weed growth had gotten so bad that all signs of fish, ducks, cranes, etc. had disappeared.” They have reached the point of seeing more and more of the underlying water and as Eddie reports, “have noticed the return of ducks and other waterfowl” to the neighborhood lake. It is estimated that the project should be completed by spring 2010.

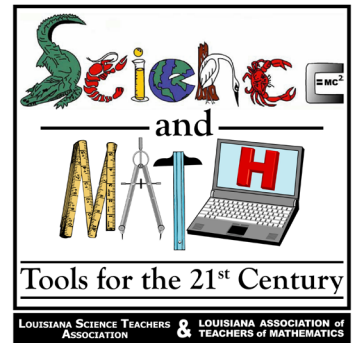


Sampling the Sea Pilot Program

DigitalOcean has asked GLOBE's help in spreading the word about an opportunity for middle and high school teachers and classrooms to participate in their pilot program DigitalOcean: Sampling the Sea, which aims to interactively educate the next generation of seafood consumers about declining global fish populations and implications for humans and oceans. Students will learn about sustainable seafood consumption as they communicate with classrooms from other countries. Participating teachers will receive curriculum guides, exercises, online training and support to help them implement the program.

For more information and a flyer you can post at your school or send to other teachers to enlist their help with this project please go to: http://www.globe.gov/fsl/pdf/DigitalOcean_flyer.pdf

**LATM/LSTA Joint Conference
Shreveport, Louisiana
November 2-4, 2009**



**Shreveport, Louisiana
November 2-4, 2009**

First Name _____
 Last Name _____
 Preferred Mailing Address Home _____ Work _____
 Address _____
 City/State/Zip _____
 Phone _____
 School Name _____
 Grade Level Preschool-(Below 1st) Elementary-(1st-4th) Middle-(5th-8th) High-(9th-12th) College
 Parish _____
 Agency _____
 E-mail Address _____

(E-mail address required. Confirmation of registration will be e-mailed.)

Registration Fees:

Monday November 2 nd Extended Session/Field Trip Fee (3 Hours) *	\$15.00
Monday November 2 nd Extended Session/Field Trip Fee (6 Hours) *	\$30.00
Pre-Registration (Postmark by September 15, 2009)	\$60.00
Early Bird Registration (Postmark by September 30, 2009)	\$75.00
Full time, Non-Teaching Student Registration (by September 30, 2009)	\$30.00
Onsite Registration	\$100.00
Onsite Full time, Non-Teaching Student Registration	\$35.00
Sci-Port Exploration (Tuesday, November 3 rd , 5:00 - 6:30 pm)	\$10.00
LATM/LSTA Awards Banquet (Tuesday, November 3, 2009, 7 – 9 pm)	\$30.00
Wednesday Only Pre-Registration (Postmark by Sept. 15, 2009)	\$30.00
Wednesday Only Early Registration (Postmark by Sept. 30, 2009)	\$30.00
Wednesday Only Onsite Registration	\$40.00
Total	

Special assistance request must be received by received by Sept. 30, 2009.

Please check if you are willing to serve as a Session President. _____ Tuesday
 _____ Wednesday

* An Extended Session/Field Trip Selection form must also be submitted.
 Make checks payable to: LATM/LSTA Professional Development 2009
 Mail to: Paul Johnson, P. O. Box 5097, Houma LA 70361

Exhibits will be open Monday, November 2, from 5 - 8 pm, Tuesday, November 3, from 8 am – 4 pm, and
 Wednesday, November 4, from 8 am -12 pm.

LSTA/LATM 2009 Conference Hotel Information

Hilton

\$99.00 Single and Double

Code LMA

http://www1.hilton.com/en_US/hi/hotel/SHVSPHF-Hilton-Shreveport-Louisiana/index.do

Tel: 1-318-698-0900 Fax: 1-318-698-0515

Holiday Inn

\$79.00 all rooms

No code assigned indicate conference

<http://www.ichotelsgroup.com/h/d/hi/1/en/hotel>

Tel: 1-318-222-7717 Fax: 1-318-221-5951

Sam's Town

\$65.00 all rooms

No code assigned indicate conference

<http://www.samstowshreveport.com/>



American Association of Petroleum Geologists (AAPG) presents...

MORE! ROCKS IN YOUR HEAD

*A one day Earth Science Workshop for
Elementary and Middle School teachers*

Downtown New Orleans on April 10 and 11, 2010

The nationally acclaimed workshop, **More! Rocks in Your Head**, covers a full scope of earth sciences for elementary and middle school teachers. Comprehensive manual and materials enable full or partial incorporation into curriculum.

Teach each activity with confidence, guided with 1) background information, 2) vocabulary, 3) project information, 4) project/s, 5) advanced thinking topics, and 6) cross-curricular ideas with language arts, social and other sciences, and math. All projects are hands-on, making earth science a fun and memorable learning experience!

CONTACT: email JaySkinner@chevron.com for registration form
FEE: \$25 (includes lunch)

TIME: 8:30 - 4pm Saturday April 10 or Sunday April 11, 2010
registration and light breakfast available at 8am

REGISTER EARLY → Maximum 60 teachers per day!

Each teacher will receive:

- Classroom notebook includes all demonstrated activities
- Igneous, Sedimentary and Metamorphic Rock Samples: numbered and labeled
 - Mineral Samples and Test Kit
 - "Oil and Natural Gas" book
 - "Hunt for Fossil Fuels" oil exploration CD
- "Tapestry of Time and Terrain" a 56" x 40" geologic map of the USA



When teachers actively involve students, real learning takes place. MORE! ROCKS IN YOUR HEAD provides the means for educators, regardless of scientific expertise, to empower their students to become life-long learners.

LSTA Travel Grant Award Description

LSTA is awarding 10 travel grants for \$300 each to offset the expense of attending its annual institute. The money can be used to cover institute registration, short course registration, lodging, meals, parking, or travel. Grant applicants will be notified of their status at least one month prior to the institute. The money will be awarded at the conclusion of the institute. Awardees must attend the institute through the conclusion of the final program.

Deadline for receipt of grant applications is September 30, 2009. The LSTA Awards Coordinator will select a committee of science leaders from throughout the state to score the applications. Order of receipt or geographic location will not necessarily be considered in the awarding of the travel grants.

Qualifications and regulations for grant eligibility are as follows:

1. Applicants must be LSTA members on or before August 1, 2009.
2. Awardees are expected to attend the full institute and take maximum advantage of the sessions.
3. Awardees are expected to use information and skills gained at the conference to improve their teaching skills and classroom instruction.
4. Awardees are not eligible to reapply for the travel grant for the next three Annual LSTA Institutes.
5. Awardees who decline to attend the 2009 Annual LSTA Institute cannot apply the money to other institutes or transfer it to another individual.
6. Awardees who decline to attend the 2009 Annual LSTA Institute and who have not given a minimum notice of two weeks to the LSTA Awards Coordinator are not eligible to reapply for the travel grant for the next three Annual LSTA Institutes.
7. LSTA Officers, Board Members, or Travel Grant Committee Members are not eligible for the grant.

The original completed grant application (<http://www.lsta.info/travelgrant.htm>) and four (4) copies should be postmarked by September 30, 2009.

Mailed completed application to:

Jan Graff, Awards Coordinator

Louisiana Science Teachers Association

10111 Norris Ferry Road

Shreveport, LA 71106

Questions can be e-mailed to Jan Graff jlgraff@bellsouth.net .

The slate of officers and regional representatives on the back of this page has been nominated to serve during the upcoming two-year appointment that begins at our Annual Awards Banquet November 3, 2009. Please VOTE for your choice!

All you need to do is remove this page from your LASER, select your candidates/nominate new candidates,
Fold over so that the address below is visible and staple or tape the edges together.
Add your return address and a stamp and mail by October 2, 2009!

All members may vote for the offices of President, Vice-President and Secretary. For the position of Regional Representative each LSTA member should vote for a candidate to represent the region where they receive their LSTA LASER.

Remember, if you have additional candidates you wish to nominate, please first check with the person to confirm membership in LSTA and a commitment to fulfill the responsibilities of the office. Then add their names to the ballot. Remove or black out your label so that your ballot is anonymous.

THANKS TO EVERYONE FOR TAKING THE TIME TO VOTE!

Paul Johnson,
Nominations Chair

Return Address:

Postage Needed

Paul Johnson
LSTA Election Chair
Terrebonne Parish School Board
P.O. Box 5097
Houma, LA 70361

ELECTION BALLOT FOR LSTA OFFICERS AND REGIONAL REPRESENTATIVES

FOLD, STAPLE, STAMP AND MAIL YOUR BALLOT BY OCTOBER 2, 2009!

<u>Position</u>	<u>Name</u>	<u>YES</u>	<u>Position</u>	<u>Name</u>	<u>YES</u>
President	Shannon Lafont	_____	Region III	Michelle Morvant	_____
Nomination	_____		Nomination	_____	
Vice-President	Cathi Cox	_____	Region IV	Mitch Robinson	_____
Nomination	_____		Nomination	_____	
Secretary	Shavonne Garner- Price	_____	Region V	Tina Savoie	_____
Nomination	_____		Nomination	_____	
Region I	Sean Hudson	_____	Region VI	Tera Robinson- LaPrarie	_____
Nomination	_____		Nomination	_____	
Region II	Jan Mistich	_____	Region VII	Sue Ottesen	_____
Nomination	_____		Nomination	_____	
			Region VIII	Lyndsey Ewing	_____
			Nomination	_____	

LSTA Regional News

◆ Region II News from Jan Mistich ◆

It is hard to believe we are back in school already! I hope everyone enjoyed some time relaxing and spending time with family and are now refreshed and ready to tackle a new year. Many teachers managed to squeeze some summer professional development into their summer vacation. Here are just a few examples:

The teachers from Project SMART took a tour of the wonderful gardens at University Terrace Elementary in East Baton Rouge Parish. They're a beautiful addition to the school, and a great reflection of many hours of generously-donated thought and labor from community partners. Many teachers left with a new determination to start or re-start gardens at their schools.



Several MSPs were held in Region 2, including projects in Central under **Julie Nall**, EBR with **Kerry Rogers** and **Janie Braud**, Livingston directed by **Vickie Hinson** Leader, Tangipahoa with **CC Lanier** running both an Elementary and a High School project and Washington Parish's Elementary project with **Sandy Morgan**. Livingston Parish's MSP ended their institute with an auction. The Tangipahoa group

recently traveled to Shreveport where they had a great program at Sci-Port. **Jill Saia** and 60 EBR teachers participated in the 2009 Mickelson ExxonMobil Teachers Academy in New Orleans in July and **Jan Mistich**, (yep! that's me!) spent a week at the AGI K-5 Leadership Institute in Houston, Texas, the last week of June.



Be on the lookout for two upcoming events in St. Tammany Parish in the next two months. Mandeville's Environmental Interpretive Program will be hosting their annual **Watershed Festival** on the Lakefront on September 19 from 9:30-12:30 and the upcoming **Healthy Water, Healthy People workshop**, being offered to teachers in Region 2 on October 10 from 8:30-3:30. The Watershed Festival will offer hands-on activities for kids and their parents about the environment. Teachers that want to participate in the event should contact me as soon as possible. The Healthy Waters, Healthy People workshop will offer a \$100 stipend to the first 25 teachers to register and attend. The workshop will be held at Mandeville Public Works and will include a tour of Mandeville's innovative wetlands assimilation wastewater treatment facility. Register by contacting me at Janiece.Mistich@stpsb.org.

I hope you all have a great start to the 2009-2010 school year. Please make sure to let me know all your science news.



REMINDER! Next LASER Deadline, Saturday, November 21st!
Contact your Regional Representative with your good news and conference reports !

◆ Region III News from Michelle Morvant ◆

Natalie Pittman was a recipient of a **Mini Grant** awarded through **BTNEP** for the 2009 Invasive Species. She received \$1500 to fund the implementation of a Coastal Roots Project. Her school will adopt monthly themes connecting Science to other content areas of the estuary. Students will grow native marsh plant species then replant them in the estuary. This project will greatly impact protection levees and barrier islands of the area as students experience saving our wetlands first hand!

Nicholls State University held a three week summer institute through the **Math and Science Partnership** program entitled "Science and Math Applications and Resources for Teachers – SMART" for teachers in Lafourche, St. Mary, Assumption, and Terrebonne Parishes. **Gary Kratzer** from Oak Park Middle School in Calcasieu Parish presented astronomy concepts through hands-on activities and use of the Starlab. The participants included thirty 3rd and 4th grade teachers. These great astronomy experiences will impact many students as teachers incorporate them into the academic school year.

Mary Beth Newchurch, Janiece Mistich, Katy Schell and **Michelle Morvant** were four participants selected from Louisiana to attend the **Leadership Academy in Earth Science** funded through ExxonMobil and the American Geological Institute in Houston, Texas this summer. The Academy explored

Earth science content, hands-on activities, resources and field experiences to be used with students in the classroom and with their colleagues in professional development settings. They plan to impact Louisiana educators by presenting their experiences at the LATM/LSTA Joint Conference in Shreveport this fall.



(left to right) **Becki Badeaux** and **Danielle Knoblock** from St. Francis de Sales in Terrebonne Parish and **Denise Roberts** from Dayton Elementary in Advance Baton Rouge are using hemispheres to track the sun during an astronomy activity.

Share your great experiences with others! Drop me a line at: mahmorv@yahoo.com

◆ Region V News from Tina Savoie ◆

Welcome back to a new school year. I hope your summer was full and restful.

Bobbie Delaney spent the summer working toward attaining her Masters Degree in Gifted Education. She's made many wonderful changes and expanded the curriculum for gifted students. She continues to teach her 8th grade Earth Science students, but now with ever more energy as she continues to collaborate with the scientist networking systems she developed through her professional development of last summer.

Gregoire Theriot completed a week of training with the FDA in Washington D. C. to incorporate food safety and technology in the science classroom. We look forward to him sharing this professional development learning experience through a future workshop.

Tina Savoie attended training in Ocean Springs through the FLEXE program. Scientists with Penn State delivered wonderful training on the deep ocean vents and seeps. Tina plans to use this as another opportunity to have students working both directly and indirectly, with scientists using real life learning experiences and developing an interest in the science career fields.

Connie Conner along with **Tina Savoie** attended the Summer Institute training to teach Pharmacy Tech. Along with teaching various science classes, they are challenging themselves to attain certification by successfully completing the National Pharmacy Technicians' Exam, along with their senior students, to continue offering this wonderful opportunity for graduating seniors.

Region V, please share your success and opportunities by emailing me at tina_savoie@camsch.org. What you do may inspire others and open new doors for our students. I hope to see everyone at the joint conference in Shreveport.

◆ Region VI News from Tera Robinson-LaPrairie ◆

Hopefully, everyone had a nice and relaxing summer break. Many of you have started planning exciting activities and events for the new school year. As you plan these events, please remember to e-mail me (robinsont@rapides.k12.la.us) me a short summary of the activities and events so I can highlight the great job you and your students are doing. The newsletters are a great way to acknowledge not only the work you are doing but also the things students are accomplishing within your classrooms.

In preparation for this month's newsletter, I sent out an e-mail to science representatives throughout Region VI. Multiple e-mails were unable to be sent because of faulty information I had on record. Many people have changed schools, taken new positions, gotten married, etc. If your contact information has

changed, please remember to send your new e-mail address to me so I can keep an accurate record of the teachers, facilitators, and coordinators within our region. Without this information I am unable to fully represent our entire region. It is also important to have your updated information so you can receive the new electronic newsletters and notification about the events that will occur throughout the year.

I wish you all the best of luck and if there is anything I can do for you, please let me know.

◆ Region VII News from Sue Ottesen ◆

The Gulf Coast Association of Geological Societies will host a More! Rocks in Your Head earth science workshop from 8:30 a.m. – 4:00 p.m. on October 3. The presentation is designed for 3rd – 8th grade teachers. Registration is free, and teachers will receive free materials as well. For more information contact **Bronwyn Young** (Bronwyn.Young@BossierSchools.Org) or **Jan Graff** (jgraff@caddo.k12.la.us).

Ramona Green (Bethune Middle Academy), **John Oswalt** (Donnie Bickham Middle School) and **Elizabeth Weitzel Vance** (Donnie Bickham Middle School) received Alliance for Education grants for materials to enhance their classroom instruction.

The Keithville Eagles 2 under the direction of **Ed Armes** took third place in the Middle School Division at the NWLA-ARC robotics tournament held May 16 at Benton School.

Several Caddo Parish middle school teachers participated in the Northwest Louisiana Science Teachers Enhancement Program at Centenary College. They include: **Elizabeth Baker, James Davis, Merrill Davis, Ramona Green, Pat Haynie, Megan Johnson, Kristen Kneubuhl McCullough, John Oswalt, Donna Riggs, Bill Shaw, Jacqueline**

Simmons, Elizabeth Weitzel Vance, Kerri Woodard, and Debbie Woodell.

Jessie Fallis from Donnie Bickham Middle School and **Micah Stewart** from Ridgewood Middle School completed the Sci-Botics robotics training at Sci-Port: Louisiana's Science Center this summer.

Read a Good Book Lately?

Sometimes there's just nothing as cozy as curling up with a good storybook. Whether you prefer turning real pages or virtual pages, you will enjoy the five spacey storybooks on The Space Place. Joining our classic stories in verse "Professor Starr's Dream Trip" and "Lucy's Planet Hunt" are the new "What's in Space," "Supercool Space Tools," and "The First Annual Planet Awards." All are available as richly illustrated online "books" with interactive page turning or viewable and printable Adobe Reader files. So settle down with a good and fun book at <http://space-place.nasa.gov/en/kids/storybooks>.



Educational Opportunities



Want to bring your hands-on exhibit to Ocean Commotion on October 22, 2009?

The exhibitor registration form can be completed online and submitted through e-mail. Or, you may print to mail or fax to 225-578-6331. Go to <http://www.lamer.lsu.edu/projects/oceancommotion/exhibitors.htm> for the forms. **NOTE:** After submitting your registration, you should receive a confirmation e-mail within 3-4 days. If you do not receive your confirmation, please e-mail or call Katie Lea at klea@lsu.edu or call at (225) 578-6445.

LUMCON and **BTNEP** are offering great opportunities through teacher workshops and student experiences.

October 23-25 - LUMCON will be hosting **From H-2-O: A Water Quality Workshop for Teachers** again this fall. **From H-2-O** is an in-depth teacher training workshop for LUMCON's BayouSide Classroom program funded by the Barataria-Terrebonne National Estuary Program. BayouSide Classroom is a great way for students to learn science hands-on while helping to monitor water quality within Louisiana. For more information about BayouSide Classroom please visit the website www.lumcon.edu/bayousideclassroom. Applications will be available in August through the LUMCON and the BTNEP websites. If you have any questions or would like to request an application directly, please contact **Murt Conover** at (985) 851-2860 or mconover@lumcon.edu.

LUMCON is now taking requests for field trip dates for the 2009-2010 school year. Want your students to learn about and experience Louisiana's unique coastal and marine environments? LUMCON offers a wide range of science-based educational activities for PK-12 students. Half-day and overnight trips are available. For more information about activities, fees, availability, and scheduling contact **Murt Conover** at mconover@lumcon.edu or (985) 851-2860.

2009 POLYED AWARD FOR EXCELLENCE IN POLYMER EDUCATION

Applications are now being accepted for the 2009 Excellence in Polymer Education Award. This national award recognizes innovative and successful contributions to the integration of polymer chemistry into pre-college curricula. The winner must be currently teaching high school (grades 10-12) or middle school (grades 5-9) in a public or private school in the United States. POLYED is sponsored jointly by the Polymer Chemistry, and the Polymeric Materials: Science & Engineering Divisions of the American Chemical Society.

The national awardee receives a plaque, and a \$1000 honorarium. The award will be presented by an ACS member at the winner's school in the spring of 2010. The awardee also receives an expense paid trip to the Spring NSTA National Conference and will be paired with a Polymer Ambassador during the days in attendance. The application form may be downloaded from the POLYED web site: www.polyed.org The deadline for applications is December 15, 2009.

Online weather course by the American Meteorological Society

AMS is again offering an online weather course for K-12 teachers. It is free and offers 3-units of graduate credits along with many educational materials for the classroom.

DataStreme Atmosphere is a precollege teacher enhancement program of the AMS/NOAA Cooperative Program for Earth System Education (CPESE). The program is funded by the National Oceanic and Atmospheric Administration (NOAA). The website for more information is at: <http://www.ametsoc.org/amsedu/DataStremeMiddle.html>



Gr 6-12: Are you an early career teacher of science – or do you know one?

Each year for three years, funding from Bayer, Amgen, and other corporate sponsors supports early-career middle and high school science teachers with an array of professional development resources and tools. NSTA Fellows receive a comprehensive NSTA membership package, online mentoring with trained instructors who teach in the same discipline and the opportunity to participate in a variety of Web-based professional development activities, including Web seminars. They also will receive financial support to attend NSTA's 2010 National Conference on Science Education.

This spring, NSTA will issue a call for entries to the 2009-2010 NSTA New Science Teacher Academy. For more information about the NSTA New Science Teacher Academy, to learn how to apply to become a fellow and 2009-2010 deadline information please visit <http://www.nsta.org/academy>.

Super Science Saturday is October 17th

This year's annual Super Science Saturday will be held on Saturday October 17th at the LSU Maddox Field House. This year's theme is "*Chemistry: it's Elemental*". Super Science Saturday attracts thousands of students and their parents each year, and is held each year to coincide with National Chemistry Week. Scientists from Exxon-Mobil, BASF, Albemarle, and others team up with LSU and Southern University's Chemistry Department to put on 10-15 separate Science demonstrations. The volunteer scientists work hard to put on a good show for the kids and their parents and also try to teach the kids a scientific principle or two. There are small gifts for the kids and each student is given a Passport as proof that the student visited each and every booth. Many area science teachers have their students turn in the passports for extra credit in Science class. Super Science Saturday starts at 10 AM and ends at 2 PM and is **free**. For more information, contact Professor George Stanley gstanley@lsu.edu



26-29 OCTOBER 2009 MTS/IEEE

Biloxi, Mississippi Coast Coliseum and Convention Center

Educators Professional Development Program: Marine Science and Technology

Who: 6th-12th grade and informal educators

Where: Stennis Space Center, Building 1103

When: Saturday, October 24, 2009

- Workshop is free for registered participants.
- Continuing Education Units (CEU) are available
- For more details and application forms, see www.oceans09mtsieebiloxi.org

Environmental and Science teachers and classes, the DEQ Environmental Leadership Program wants you!



The Department of Environmental Quality's Louisiana Environmental Leadership Program is a voluntary program that recognizes organizations or individuals that are committed to improving the quality of the environment through pollution prevention, waste reduction and other environmental improvements. Each year, DEQ presents the Louisiana Environmental Leadership Awards to recognize those who have voluntarily gone above and beyond regulations to work for pollution prevention, waste reduction and environmental innovation and improvements.

Schools and universities are encouraged to join the ELP and submit their projects for consideration. Be the solution with an innovative environmental project. You can see what others have done at www.deq.louisiana.gov/elp. To enroll in the program, fill out the school and university form at www.deq.louisiana.gov/elp or for more information call Dr. Alex Appeaning, Deputy Secretary or his assistant, Linda Brown at 225-219-3954 or email at linda.brown@la.gov.

